

# Spider Metal Deck Low Profile

## Cast-in-Place Concrete Insert

**A high performance solution for suspending MEP services in shallow concrete slabs.**

- **Universal design**  
Push-in toggles allow for fast below deck installation for both cable and rod
- **Adaptable**  
One insert accepts multiple cable and rod sizes
- **Durable**  
2" low profile design prevents it being kicked or damaged before the concrete pour
- **ICC, LARR & UL**  
Tested and approved



## Product Specification

### Load Rating

- Up to 1000 lbs  
(\*Safe working load depends on adapter size, size and structure type – see table 1 on page 4 for more details)

### Material

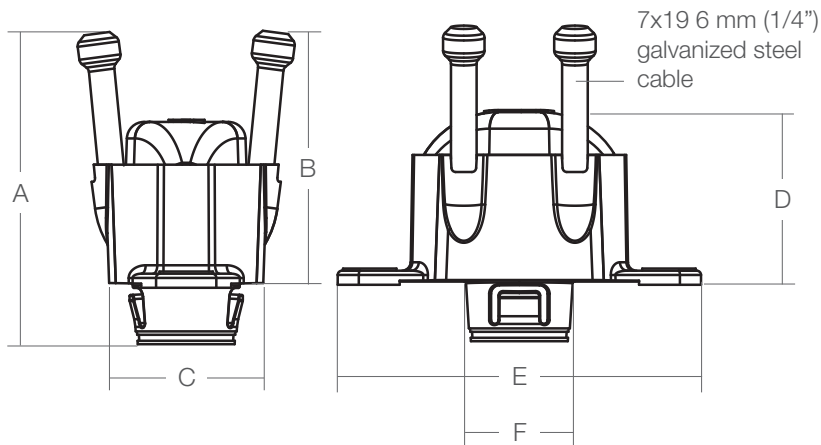
- Base – ABS
- Head – ABS
- Cable – 7 x 19, 6 mm (1/4") Galvanised Steel

## Approvals

- International Code Council Evaluation Service (ICC-ES), ESR-4190 for Concrete Slab and Deck. Code compliance with 2021 IBC/IRC. LA Department of Building and Safety (LADBS) LARR Approved through ICC-ES ESR-4190 LABC and LARC supplement. Tested by an accredited independent testing laboratory in accordance with ASTM E488 and ICC-ES AC502 for use in cracked and uncracked concrete under the design provisions of ACI318.
- Underwriters Laboratories (UL Listed)  
UL listed per UL 2239 Conduit & Cable Hardware. File No. E251132.  
Also UL listed and recognized for use in air handling spaces (Plenum Rated) per UL 2043.  
UL Listed per UL 1598, File No. E228153 (Rod Adapter Sizes 3/8" - 5/8" & Cable Toggles)
- Listed per CSA C22.2 No.18.4-15 (Conduit & Cable Hardware Class 4115.01,02,03,04, File No. 80035351)
- The following approval is applicable in the USA and Canada.



## Design & Dimensions

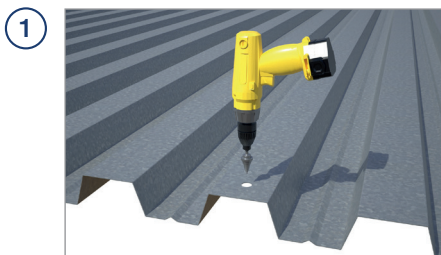


	In
A	2.50
B	2.00
C	1.40
D	1.50
E	3.25
F	1.00

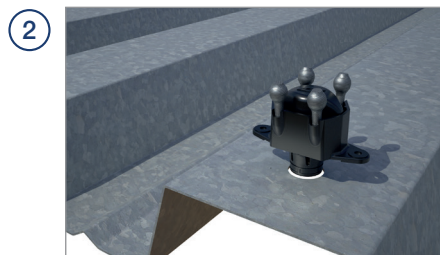
## Packaging

Product Code	SX-MD-LP
Box Quantity	80
Package Weight (box)	11.32 lbs

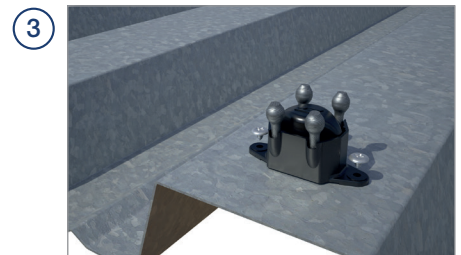
## Installation



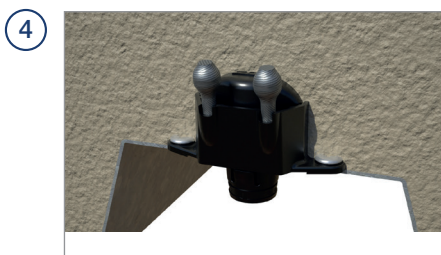
1 Drill a 1" diameter hole in the metal deck.



2 Insert Spider Metal Deck Low Profile through this hole.



3 Secure the Spider Metal Deck Low Profile into the deck using two #8 screws.

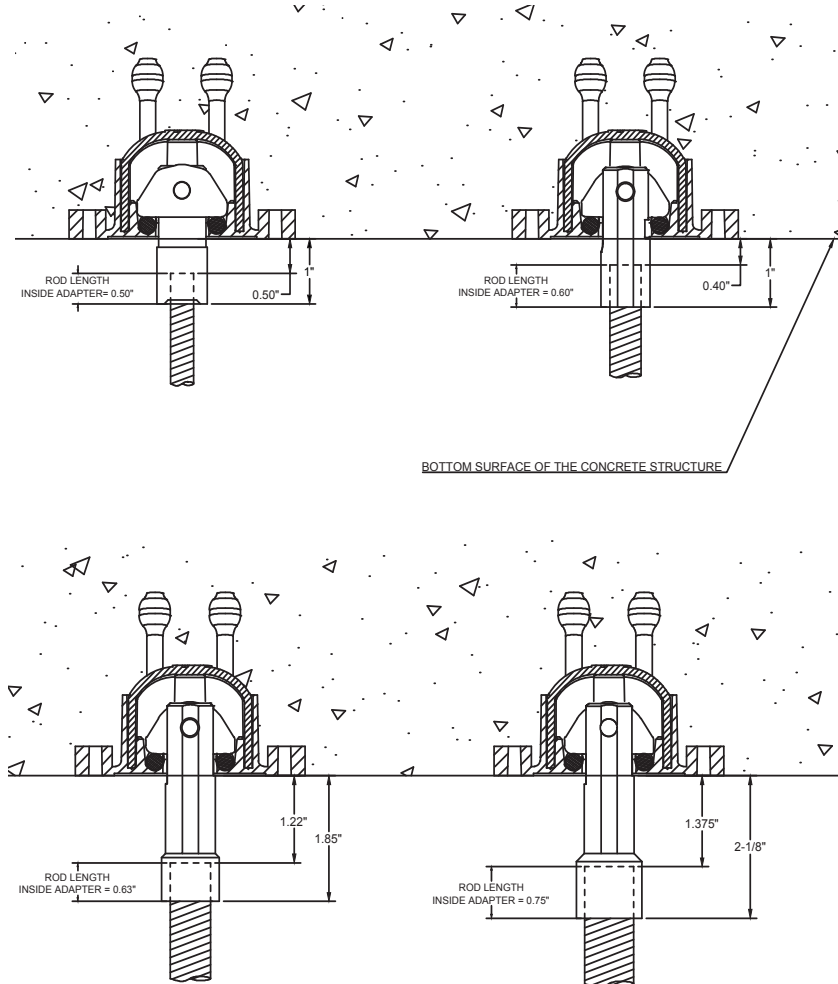


4 Pour the concrete and let it cure to the required minimum compressive strength as recommended in this technical data pack.

Spider Metal Deck Low Profile will be ready for further installation of Spider Cable Push-In Toggle or Spider Rod Push-In Toggle.

## Installation Guidance

Spider Insert, Spider Rod Push-In Toggle and Threaded Rod Assembly Dimensions for Pre-Fabrication.



Do not load the Spider Insert before the concrete is poured and fully cured to recommended compressive strength.

Always use the Spider Cable Push-In Toggle or Spider Rod Push-In Toggle supplied by Gripple for suspension from the Spider.

Warranty will not apply if used with any other third party products.

See Spider Cable Push-In Toggle Technical Data Pack for more information on cable installation guidance.

## Performance Data

### Minimal structural requirements

Figure 1

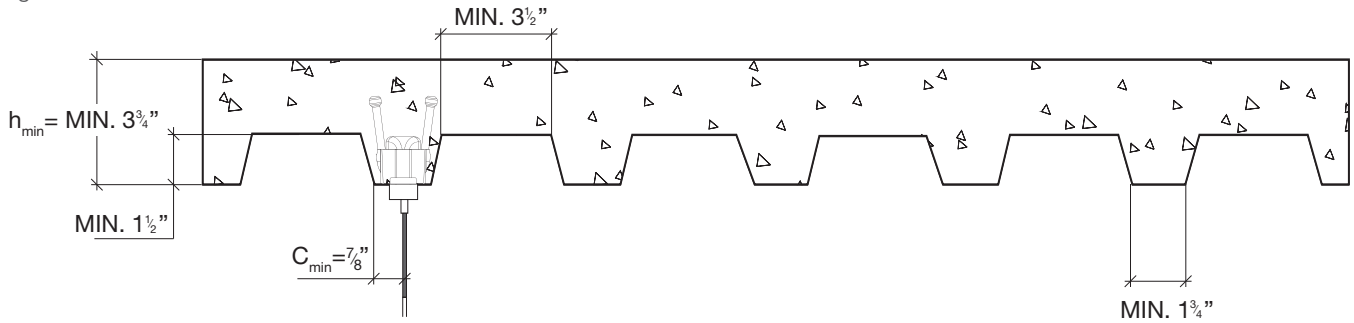


Figure 1 shows Spider Metal Deck Low Profile Insert in 1.5 inch profile metal deck with 2.25 inch concrete topping thickness

\*Data in Table 1 is only applicable if the structure meets the minimum parameters given in Figure 1

**Table 1: Spider Metal Deck Low Profile and Spider Rod Push-In Toggle assembly allowable tension design values in concrete (ASD)**

INSERT RECEIVER	CONCRETE		ALLOWABLE TENSION IN METAL DECK (lbs)			
			SX-ADP-3/8	SX-ADP-1/2	SX-ADP-5/8	SX-ADP-3/4
Spider Insert (SX-MD-LP)	Normal Weight Concrete	Uncracked	990	990	990	990
	$f'_c = 3000$ psi	Cracked <sup>4</sup>	860	860	860	860

To convert above Allowable Loads (ASD) into Design Strengths (LRFD) multiply the values in the table by 1.4

1. Load combinations from ACI 318-14 5.3 or ACI 318-11 Section 9.2, as applicable
2. 100% dead load, controlling load combination 1.4D
3. Edge distance, spacing and concrete member thickness shall meet the requirements in Figure 1
4. Values are applicable for seismic design category C,D,E and F applications
5. Values are for condition B where supplementary reinforcement in accordance with ACI 318-14 17.3.3 or ACI 318-11 D.4.3 is not provided
6. Values shown in the table are for insert assembly in tension only

## Key Recommendations

Failure to comply with these recommendations may result in product malfunction and possible damage to property or person and will invalidate the Gripple guarantee. Gripple products are guaranteed to be free from defects in materials and workmanship in accordance with our terms and conditions. No other warranty, whether express or implied, including any warranty of merchantability or fitness for purpose shall exist in connection with the sale or use of any Gripple product.

Full technical information and installation instructions should be obtained directly from Gripple Limited, Gripple Europe, Gripple Inc., Gripple Japan, Gripple Poland, Gripple India, Gripple Germany, any regional Gripple office, or via our website [www.gripple.com](http://www.gripple.com).



### LOADS

Always operate the product within its stated safe working load range. Suspend static loads only. Do not subject to shock loading. Do not adjust under load.



### ENVIRONMENT

Do not use in chlorinated or chemically corrosive atmospheres. Standard hangers are for use in dry and air conditioned environments only. Stainless steel hangers should be considered for high to saturated humid environments after validation by a competent person.



### SWIMMING POOLS

Not suitable for swimming pools.



### INSTALLATION

Do not walk or stand on the Gripple product installation. Gripple products must not be used for personal suspension, fall protection or harnessing people.



### STORING

Do not store the product outdoors, or in damp or abnormal conditions.



### REPAIR, MODIFICATION AND RE-USE

Do not repair, modify or re-use Gripple products. If you have any queries regarding product performance, please contact [TechnicalServices@gripple.com](mailto:TechnicalServices@gripple.com)



### TEMPERATURE PERFORMANCE

The standard operating temperature range of this product is -20°C to +70°C (-4°F to +158°F). If increased temperature resistance is required, please contact Gripple Technical Services for advice on your specific application.